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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,742	04/05/2001	Anthony Mauro	010001	6064

23696 7590 09/23/2004

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

FIELDS, COURTNEY D

ART UNIT

PAPER NUMBER

2137

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/826,742

Applicant(s)

MAURO, ANTHONY



Examiner

Courtney D. Fields

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>22 August 2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-26 are pending.
2. The Information Disclosure Statement respectfully submitted on 22 August 2002 has been considered by the Examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11 and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Osborn (U.S. Patent No. 6, 026, 293). Referring to the rejection of claims 1 and 20, Osborn discloses a remote terminal in a wireless communication system comprising a data processing unit configured to process data for a communication over a wireless link, a main processor coupled to the data processing unit and configured to provide control for the remote terminal, wherein the data processing unit and main processor are unsecured units vulnerable to being spoofed by external entities, a secure processor configured to perform secure processing for the remote terminal, and a secure memory configured to provide secure storage of data wherein the secure unit is physically encapsulated within a secure module and further configured to prevent

unauthorized access to the secure memory via hardcoded protocols in Column 7, lines 60-67, Column 8, lines 1-62.

As per claim 2, Osborn discloses the claimed limitation wherein a read only memory (ROM) configured to store program instructions and parameters used for the secure processing in Column 8, lines 21-28, Column 15, lines 20-24.

As per claim 3, Osborn discloses the claimed limitation wherein the ROM is embedded within the secure processor in Column 7, lines 65-67, Column 8, lines 1-10.

As per claims 4 and 22, Osborn discloses the claimed limitation wherein the secure processor and secure memory are implemented and physically encapsulated within a single integrated circuit (IC) in Column 9, lines 30-62.

As per claim 5, Osborn discloses the claimed limitation wherein the secure processor and secure memory are physically encapsulated within a tamper resistance or tamper evident unit in Column 6, lines 31-45 and Column 8, lines 21-62.

As per claims 6 and 23, Osborn discloses the claimed limitation wherein the secure processor and secure memory are permanently affixed within the remote terminal in Column 9, lines 63-67, Column 10, lines 1-7.

As per claim 7, Osborn discloses the claimed limitation wherein messaging and data are exchanged with the secure unit via a single entry point provided by a bus in Column 9, lines 36-46.

As per claim 8, Osborn discloses the claimed limitation wherein the secure unit is configured to implement public-key cryptography for the secure processing in Column 12, lines 14-22.

As per claims 9 and 10, Osborn discloses the claimed limitation wherein a private key assigned to the remote terminal is embedded within the secure processor in Column 10, lines 14-23.

As per claim 11, Osborn discloses the claimed limitation wherein a private key assigned to the remote terminal is stored in a ROM within the secure processor in Column 11, lines 43-50, Column 12, lines 5-22.

As per claim 21, Osborn discloses a method for providing secure processing and data storage for a wireless communication device comprising defining a secure processor within the communication device for performing secure processing, defining a secure storage within the communication device for performing secure processing, defining a secure storage within the communication device for providing secure data storage, storing program instructions and parameters used for the secure processing within the secure processor or secure storage, wherein the stored program instructions implement hardcoded protocols, and physically encapsulating the secure processor and secure storage within a secure unit in Column 3, lines 61-67, Column 4, lines 1-8, Column 8, lines 19-62, Column 9, lines 30-62.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 12-19, 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osborn in view of Rowney et al. (U.S. Patent No.5, 987,140). Osborn discloses elements of claim 1, as outlined above. However, Osborn does not explicitly disclose securing a wireless communication system using different levels of security. As per claim 12, Rowney et al. discloses the claimed limitation wherein the secure processor is configurable to implement one or more security protocols in Column 10, lines 4-8, 14-19, 25-28, 51-58.

As per claim 13, Rowney et al. discloses the claimed limitation wherein the one or more security protocols include Secure Sockets Layer (SSL) protocol or Transport Layer Security (TLS) protocol or both in Column 10, lines 6-8, 20-24, and Figures 1 and 2.

As per claim 14, Rowney et al. discloses the claimed limitation wherein the secure unit is configurable to act in a role of a client or a server for each secure transaction with a foreign entity in Column 10, lines 25-67, Column 11, lines 1-48.

As per claim 15, Rowney et al. discloses the claimed limitation wherein the secure memory is configured to store electronic funds in Column 11, lines 49-67, Column 12, lines 1-11.

As per claim 16, Rowney et al. discloses the claimed limitation wherein the secure memory is configured to store cryptographic parameters used for the secure processing in Column 10, lines 31-67, Column 11, lines 1-13.

As per claims 17 and 26, Rowney et al. discloses the claimed limitation wherein the secure memory is configured to store one or more certificates used for authentication in Column 12, lines 41-67, Column 13, lines 1-67, Column 14, lines 1-13.

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As per claim 18, Rowney et al. discloses the claimed limitation wherein a certificate is loaded into the secure memory via a secure transaction with a certificate authority in Column 15, lines 56-67, Column 16, lines 1-22.

As per claim 19, Rowney et al. discloses the claimed limitation wherein different levels of security is implemented for a certificate loading transaction depending on whether or not a certificate has already been loaded to the remote terminal in Column 18, lines 20-33, 53-67.

As per claim 24, Rowney et al. discloses a method for providing secure processing and data storage for a wireless communication device comprising receiving a first message to initiate a secure transaction with a foreign entity, authenticating the foreign entity through a secure processor located within the communication device, if the foreign entity is authenticated, performing securing processing for the secure transaction through the secure processor, and wherein the secure unit is physically encapsulated within a secure module and further configured to prevent unauthorized access to the secure memory via hardcoded protocols in Column 10, lines 31-67, Column 11, lines 1-44

As per claim 25, Rowney et al. discloses the claimed limitation wherein the secure processing is performed based on program instructions stored within the secure processor in Column 4, lines 2-4. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Osborn's electronic memory tampering system by combining Rowney et al's secure data transmission for communication over the Internet. Motivation for such an

implementation would enable the user to communicate and process data transactions over a secure channel using SSL and SET protocols. (See Rowney et al., Column 2, lines 46-56)

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamauchi et al. U.S. Patent No. 4,881,271) discloses a portable wireless communication system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Wed. 6:00 - 6:00 pm; Thur. 6:00 - 10 am.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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September 16, 2004

Matthew D. Smithers
MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137